



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,744	01/10/2002	Valery Poulbot	A34526-PCT	3821
5514	7590	09/09/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			MAKI, STEVEN D	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	

1733

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/913,744	Applicant(s) POULBOT, VALERY	
	Examiner Steven D. Maki	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1) The substitute specification filed 6-4-04 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: The substitute specification was not accompanied by a statement indicating no new matter was included.

2) The disclosure is objected to because of the following informalities:

- the disclosure describes "[sic]" (see bottom of page 12 and top of page 13).

Appropriate correction is required.

3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claims 2-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and 3, the scope and meaning of "substantially connects" said lateral faces together, such that it is "interrupted" opposite the faces is unclear. The description of "connects" is inconsistent with the description of "interrupted". Applicant argues that the phrase "interrupted opposite" is made clear in the original disclosure at page 11 lines 10-17. Applicant's argument is not persuasive. Page 11 lines 11-17 of the original specification fails to contain a special definition of "interrupted opposite". More importantly, Page 11 lines 11-17 is describing a different embodiment in which the conducting layer fails to "substantially connect" the sidewalls 4, 5.

In claim 3 next to last line, "so such" should be --such--.

5) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1733

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Fielding

6) Claim 1, 4-5 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fielding (US 2342576).

The claimed tread reads on the figure 5 embodiment in which a conductive layer 5 is arranged between an upper layer of non-conducting / high resistivity material and a lower layer of non-conducting / high resistivity material. The conductive layer connects "lateral faces" as claimed. See figure 5.

As to claim 1, the claimed tread is anticipated by Fielding's figure 5 embodiment. Applicant argues that Fielding does not anticipate claim 1 because figure 5 relates to a solid tire, not a tread of a pneumatic tire. Applicant's argument is not commensurate in scope with the claims and is therefore not persuasive. None of the claims require a pneumatic tire. Claim 1 requires "A tread for a tire," instead of "--A pneumatic tire having a tread--". The description of "A tread for a tire" fails to require structure not disclosed by Fielding.

As to claim 4, the conductive layer 5 is parallel to the tread surface.

As to claim 5, there is only one conductive layer in the figure 5 embodiment.

As to claim 13, the claimed tire reads on the solid tire in figure 5 of Fielding; it being emphasized that claim 13 fails to require a pneumatic tire.

Art Unit: 1733

7) Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fielding.

As to claim 6, it would have been obvious to one of ordinary skill in the art to locate the conductive layer at a distance of $\frac{1}{2}$ the tread thickness from the tread surface since (1) Fielding suggests locating the conductive layer below the tread surface, the determination of the optimum distance therefrom not requiring undue experimentation and optionally (2) a solid tire having more than two layers (e.g. three layers) is taken as well known / conventional per se; Fielding suggesting locating the conductive layer between the upper two layers of such a solid tire.

As to claim 7, the specific resistivities would have been obvious in view of Fielding's teaching to use a layer of rubber having high electrical conductivity so that a tire also comprising rubber having high resistivity / non-conductive rubber will be a static resistant tire.

Japan '415

8) Claims 4-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Japan '415 (JP 11-227415).

As to claims 11-12, Japan '415 remains available as prior art against claims 11-12 since the subject matter of these claims are not supported by the English translation of the priority document. Claims 4-10 and 13 are also not supported because (1) they can depend on claim 2 and (2) the subject matter of claim 2 is not supported by the English translation of the priority document.

Japan '415 discloses a tread comprising insulating material (silica reinforced rubber) 1 and conductive rubber 2. The claimed tread reads on the tread shown in figure 2 or the tread shown in figure 3. The claimed at least one conductive layer reads on one of the conductive layers extending from one side face of the tread to the other side face of the tread (e.g. a "horizontally extending layer" of the mesh defined by the conductive material).

As to claims 4-7, see the conductive material in either figures 2 or 3. For example, figure 2 shows a conductive horizontal layer extending at the $\frac{1}{2}$ thickness of the tread. The word "single" in claim 5 does not exclude other conductive layers. As to claim 7, see at least paragraph 31 of machine translation for Japan '415.

As to claims 8-12, the claimed films / claimed strips read on the "vertically extending" portion(s) of the mesh defined by the conductive material.

9) Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '415 in view of Aoki (US 5397616) or Europe '229 (EP 732229).

As to claims 2-3, Japan '415 remains available as prior art against claims 2-3 since these claims are not supported by the English translation of the priority document

Japan '415 discloses a tread comprising insulating material (silica reinforced rubber) 1 and conductive rubber 2. The claimed tread reads on the tread shown in figure 2 or the tread shown in figure 3. The claimed at least one conductive layer reads on one of the conductive layers extending from one side face of the tread to the other side face of the tread (e.g. a "horizontally extending layer" of the mesh defined by the conductive material).

As to claims 2 and 3, it would have been obvious to mold the multilayer tread of Japan '415 such that the claimed "interruptions" are provided in view of (a) Aoki's suggestion to mold circumferential grooves in a tread such that the lower tread layer is exposed for the benefit of preventing cracks the bottoms of the grooves or (b) Europe '229's suggestion to form circumferential grooves in a tread having a conductive layer and a silica layer.

Verbrugge

10) Claims 1, 4-8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbrugge (WO 98/38050) in view of Great Britain '757 (GB 544757).

Verbrugge, directed to an antistatic tread, discloses a tread having an insulating layer (silica reinforced layer) 8 and an insulating layer (silica reinforced layer) 9. A conducting insert 11 extends through the layer 8 and a conducting insert 12 extends through the layer 9. Verbrugge does not recite providing a conducting layer between the layers 8 and 9 so as to extend from one side face of the tread to another side face of the tread. However, it would have been obvious to one of ordinary skill in the art to coat the surfaces of the upper and lower layers of Verbrugghe's tread with conducting rubber cement so that a conducting layer is located between the upper and lower layers of the tread and connect lateral faces of the tread in order to further improve static discharge since (a) Verbrugghe's tread comprises two insulating layers and (b) Great Britain '757, also directed to an antistatic tire, suggests coating the upper surface of an insulating tread layer, the lower surface of the insulating tread and the splice of the

Art Unit: 1733

insulating tread in order to improve static discharge (page 3 lines 116-121). Hence, Great Britain '757 provides ample motivation (improve conductivity for improved static discharge) to coat the surfaces of each electrically insulating layer of Verbrugge.

Applicant argues that Verbrugge relates to an industrial tire rather than a tread. This argument is not persuasive since (1) claim 1 merely recites "A tread for a tire" and (2) Verbrugge teaches a tire having a tread. Claim 1 fails to exclude the tread being incorporated in a tire as evidence for example by applicant's claim 13 which recites "A tire, characterized in that it contains a tread (1, 101) according to Claim 1 or 2.

Applicant argues that two non-conductive layers are not provided in Verbrugge since layer 8 is conductive and layer 7 is non-conductive. Applicant is incorrect. Layer 8, like layer 7, is a non-conductive layer comprising a silica mix. An electrical path is established through layer 8 (layer 8 is made conductive) using the conductive insert 11.

As to Great Britain '757, applicant argues that the skilled artisan looking to GB '757 would not apply the rubber cement composition internally in the tread because it would not serve to reduce resistance from the ground to the rim of the tire. The examiner disagrees. Great Britain '757 suggests applying the conductive rubber cement to all surfaces of the tread (a tire component). See figure 2 and page 3 lines 85-121 where Great Britain '757 teaches applying the conducting rubber cement to the outer surface of a tread strip, the inner surface of the tread strip and internally in the tread at the splice. Great Britain '757's teaching to coat all surfaces of an insulating tread to lower resistance of the tire tread motivates one of ordinary skill in the art to coat all surfaces of insulating layers 7, 8 of Verbrugge.

As to claim 4, Great Britain '757 suggests coating all surfaces and thereby locating a conductive layer between the upper and lower layers of Verbrugghe's tread. Since the interface between these layer is substantially parallel to the tread surface at at least the central region of the tire, the conductive layer must also be substantially parallel to the tread surface.

As to claims 5 and 6, it would have been obvious to use tread layers 7, 8 having a thickness such that the conductive layer therebetween is at the claimed distance in view of Verbrugghe's teaching to use two layers for the tread (one being for rolling resistance); the determination of optimum thicknesses for such layers not requiring undue experimentation.

As to claim 7, the claimed resistivity would have been obvious in view of Verbrugghe's and Great Britain '757's teachings as to non-conductive rubber and conductive rubber. Verbrugghe's tread layers have a high resistivity since they comprise silica reinforced rubber. At page 5 lines 101-107, Great Britain '757 teaches conductive rubber composition having a resistivity less than 10^5 ohm cm and insulating rubber having a resistivity greater than 10^9 ohm cm.

As to claims 8, 11 and 12, the limitations therein would have been obvious in view of (a) Verbrugghe's teaching to form an electrical path through the tread using conductive inserts 11, 12 and/or (b) Great Britain '757's teaching to use conductive rubber cement at the splice - such an inclined film extending between the lateral faces of the tread and connecting the upper and lower surface of the tread.

As to claim 13, Verbrugghe teaches a tire having a tread. See figure 1.

Art Unit: 1733

11) Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbrugge in view of Great Britain '757 as applied above and further in view of Aoki (US 5397616) or Europe '229 (EP 732229).

As to claims 2 and 3, it would have been obvious to mold the multilayer tread of Verbrugge such that the claimed "interruptions" are provided in view of (a) Aoki's suggestion to mold circumferential grooves in a tread such that the lower tread layer is exposed for the benefit of preventing cracks the bottoms of the grooves or (b) Europe '229's suggestion to form circumferential grooves in a tread having a conductive layer and a silica layer.

Applicant's argument that Aoki is not prior art is not correct since Aoki was published (3-14-95) more than one year before applicant's filing date (11-9-99).

Applicant's arguments regarding Aoki or Europe '229 are not persuasive since (1) Great Britain '757 suggests providing Verbrugge's two layer insulating tread with the claimed conducting layer, (2) claims 2 and 3 are not limited to the special definition described at page 17 of the specification and (3) Aoki or Europe '229 suggests forming "interruptions" in the form of grooves.

12) Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbrugge in view of Great Britain '757 as applied above and further in view of Gerresheim et al (US 5942069).

As to claims 8-10, it would have been obvious to provide the lateral faces of the tread with the claimed conductive strips on the lateral faces since Gerresheim et al

Art Unit: 1733

suggests improving conductivity and thereby static discharge by arranging conductive layers on the lateral faces of the tread as shown in figures 2-3 and 13-15.

Remarks

13) Applicant's arguments filed 6-4-04 have been fully considered but they are not persuasive. Applicant's arguments are addressed above.

The English translation of the priority document has been received. Although the figures 1 and 2 of the certified copy of the priority document has not been received, claim 1 is supported by the subject matter found in the English translation of the priority document. Japan '415 remains prior art against the remaining claims for the reasons discussed above.

14) No claim is allowed.

15) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1733

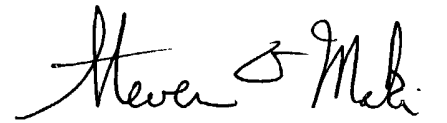
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
September 7, 2004


STEVEN D. MAKI
PRIMARY EXAMINER
~~GROUP 1300~~
9-7-04
AU 1733